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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gregory W. Starr

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EXAMINER

NGUYEN, LINH M

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

61A

Office Action Summary	Application No. 10/797,836	Applicant(s) STARR ET AL.	
	Examiner Linh M. Nguyen	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 11-21 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 14-21 and 24-27 is/are allowed.
- 6) ☒ Claim(s) 1-5, 12, 13 and 28 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a reply to Applicants' amendment filed 12/12/2005. By virtue of this amendment, claims 8-10, 22-23 and 29-30 are canceled; thus claims 1-7, 11-21 and 24-28 are currently presented in the instant application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A person shall be entitled to a patent unless –

2. Claims 1-5, 12-13 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebuchi et al. (U.S. Patent No. 6,392,462).

With respect to claim 1, Ebuchi et al. discloses, in Fig. 10, a circuit and its corresponding method of concurrently generating a plurality of clock signals [PH1, ..., PH10] derived from a reference signal [REFCLK], the method comprising receiving the reference signal; producing a plurality of signals [PHA1, ..., PHA10] each having the same frequency and a different phase; dividing [200, 400, 500] the frequency of each of the produced signals concurrently in accordance with programmable selections of frequency divisors [200, 400, 500] to produce output signals each having a frequency and phase; and multiplexing [700] the output signals in accordance with programmable selections such that each clock signal is usable as an off-chip clock signal, an on-chip clock signal, or both.

The recitation of “usable as an off-chip clock signal, an on-chip clock signal, or both” does not further limit the limitation of the claim. It has been held that a recitation with respect to

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the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). Therefore, this limitation has not been given patentable weight.

With respect to claim 2, Ebuchi et al. discloses, in Fig.10, that frequency of each of the output signals is different than or the same as one or more of the other of the output signals.

With respect to claim 3, Ebuchi et al. discloses, in Fig.10, that multiplexing [700] comprises programmably coupling one of the output signals to an output pin [PH1,...,PH10] for use as an off-chip clock signal.

The recitation of “*for use as an off-chip clock signal*” does not further limit the limitation of the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). Therefore, this limitation has not been given patentable weight.

With respect to claim 4, Ebuchi et al. discloses, in Fig.10, that multiplexing [700] comprises programmably coupling one of the output signals [PH1,...,PH10] to a global clock network for use as an on-chip global clock signal, the global clock network being on the same integrated circuit chip on which the producing and the dividing are performed.

The recitation of “*for use as an on-chip clock signal*” does not further limit the limitation of the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art

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apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). Therefore, this limitation has not been given patentable weight.

With respect to claim 5, Ebuchi et al. discloses, in Fig.10, that multiplexing [700] comprises programmably coupling one of the output signals [PH1,...,PH10] to a clock network for use as an on-chip local clock signal, the clock network coupled to only a portion of circuits on an integrated circuit chip, the integrated circuit chip being the same on which the producing and the dividing are performed.

The recitation of “*for use as an on-chip clock signal*” does not further limit the limitation of the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). Therefore, this limitation has not been given patentable weight.

With respect to claims 12, 13 and 28, Ebuchi et al. discloses, in Fig.10, a circuit and its corresponding method of providing multiple clock signals [PH1,..., PH10] based on a reference signal [REFCLK], the method comprising generating a first plurality of clock signals [PHA1, ..., PHA10] in response to receiving reference signal; each of the plurality of clock signals having the same frequency and a different phase; generating concurrently a second plurality of clock signals [t1b, ..., t10b] each having a phase and a selectable frequency; and making each of the second plurality of clock signals available for a same plurality of clocking applications; wherein the clocking applications include off-chip clocking, on-chip global clocking, on-chip local clocking, frequency synthesizing, and zero delay buffering.

The recitation of “*making each of the second plurality of clock signals available for a same plurality of clocking applications; wherein the clocking applications include off-chip clocking, on-chip global clocking, on-chip local clocking, frequency synthesizing, and zero delay buffering*” does not further limit the limitation of the claim; similarly the recitation “*A digital processing system ... and said input/output circuitry*” (in claim 28) does not further limit the limitation of the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987). Therefore, this limitation has not been given patentable weight.

Allowable Subject Matter

3. Claims 11, 14-21 and 24-27 are allowed.
4. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art of record does not show or fairly suggest:

a) A method including a step of synchronizing a plurality of input signals with an enable signal; and selecting one of the plurality of input signals to be the reference signal, as called for in claim 6;

b) A method including a step of modifying the frequency of the input clock signal having an input frequency to produce a first signal having a first frequency, in combination with the remaining claimed limitations, as called for in claim 11; and

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c) A circuit on a programmable logic device for outputting a plurality of clock signals including first multiplexing circuitry coupled to receive plurality of VCO output signals each having a different phase and operative to output a signals selected plurality of phase-selected from said plurality of VCO output signals; a plurality of frequency dividers each coupled to the multiplexing circuit and second multiplexing circuitry coupled to receive each of phase-selected and frequency-divided signals from plurality of frequency dividers, in combination with the remaining claimed limitations, as called for in claim 14.

Remarks

6. Applicants' arguments filed 12/12/2005 have been seriously considered. Claim 11 is allowed due to the amendment. Additionally, upon reconsideration allowability previously indicated regarding claims 1-5 are withdrawn and claims 1-5 are now rejected based on prior art to Ebuchi et al., as set forth in the office action.
7. Applicant is noted that the comment on page 12, last paragraph of the Remarks section is incorrect since claims 12, 13 and 28 are not dependent claims from amendment independent claim 11.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (571) 272-1749. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMN



LINH MY NGUYEN
PRIMARY EXAMINER